CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on November 12, 2003.

Attorney for Appellant



PATENT Docket No. SA9-98-160

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant:	Robert Douglas Case et al)
Serial No.:	09/191,256	
Filed:	November 12, 1998) Group Art) Unit: 2154
For:	SYSTEM AND METHOD FOR REMOTELY ACCESSING A CLIENT IN A CLIENT SERVER ENVIRONMENT)))
Examiner:	Zarni Maung)) · ·

APPELLANT'S APPEAL BRIEF

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

On June 18, 2003, Appellant filed a timely Notice of Appeal from the Final Office Action mailed December 18, 2002. With this appeal, Appellant is filing an amendment and response to Final Office Action. The amendments are being made to place the claims and patent application in better condition for appeal. Appellant appeals from the rejection of all pending claims.

This Brief is being filed in triplicate under the provisions of 37 C.F.R. § 1.192. The filing fee set forth in 37 C.F.R. § 1.17(c) of Three Hundred Twenty Dollars (\$330.00) is now being submitted. The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication, or to credit any overpayment, to Deposit Account No. 09-0466.

1. REAL PARTY IN INTEREST

The real party in interest is the assignee, International Business Machines Corporation, Armonk, New York.

2. RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

3. STATUS OF CLAIMS

The Final Office Action rejected claims 1-22 stand rejected under 35 U.S.C. § 103 as being obvious over *Scherpbier*, U.S. Patent Number 5,944,791 (hereinafter Scherpbier), in view of *Kalajan*, U.S. Patent Number 5,941,954 (hereinafter Kalajan). Appellant appeals the rejection of pending claims 1-22.

4. STATUS OF AMENDMENTS

Concurrent with this paper, Appellant is filing an Amendment and Response to Final

Office Action. In the Amendment and Response to Final Office Action filed concurrent with this

paper, claims 1, 9, and 16 have been amended to place the claims in better condition for appeal.

5. SUMMARY OF INVENTION

By way of background, the presently invention teaches remotely controlling a client machine from a server machine. Specification, page 5, lines 3-6. Id., page 5, lines 10-12. A user remotely controls the client machine from the browser of a server machine without special software. Specification, page 5, lines 16-21. The client machine has no user. Specification, page 6, lines 12-16. To provide these aspects, the present application discloses a listening program residing on the client computer. Drawings, Figure 2, 28. The listening program receives requests from the user's browser at the server machine. Specification, page 13, line 19 – page 14, line 4. Receiving the request causes the listening program to invoke a client agent for communicating with the browser. Specification, claim 1, page 20, lines 1-6. The client agent establishes direct communication with the browser of the server machine and controls the client machine in response to user commands. Id. The present invention allows a remote user to control the client machine using only the browser of a remote or server machine.

6. ISSUES

The following issues are presented for review:

I. Did the Examiner fail to establish *prima facie* obviousness of claims 1-22 where the cited prior art references in combination as a whole, do not motivate or suggest the claimed invention and where the limitations of the present invention are not found in the cited prior art?

7. GROUPING OF CLAIMS

The Examiner rejected claims 1-22 as a group. Claims 5, 11, and 21 stand or fall together. Claims 7 and 18 stand or fall together. Claims 12 and 22 stand or fall as a group. Claims 14 and 20 stand or fall together. Claims 15 and 19 stand or fall together. The remaining claims, 1-4, 6, 8-10, 13, 16-18 do not stand or fall together, and arguments why they are separately patentable are provided in the "Argument" section below.

8. ARGUMENT

I. Claims 1-22 are not obvious under 35 U.S.C. § 103 because the Scherpbier reference and the Kalajan Reference do not contain all the limitations of the present invention and because there is no motivation or suggestion to combine the Kalajan reference with the Scherpbier reference.

The Prior Art. The two references combined to reject the claims under Section 103(a) are summarized below.

Scherpbier, U.S. Patent Number 5,944,791. Scherpbier discloses a method to control a specific type of program, a browser, on a client or passenger computer, from a server or pilot computer *Scherpbier*, figure 1. The passenger uses a URL to download an applet. *Id.*, column 5, lines 6-8. The applet receives a flight number from the user of the passenger computer and uses the flight number to log into a control site, which downloads an active control element, such as an applet. *Id.*, column 5, lines 15-17. The pilot computer is also configured with an active control element. *Id.*, Abstract. The pilot computer connects with the control site. *Scherpbier*, figure 1.

The active control element transmits the URL of a web page being viewed by the pilot computer web browser to a control site. *Id.*, Abstract. The control site modifies the web page URL, removing or modifying links. *Id.*, column 5, lines 54-67. The control site transmits the modified web page file to the browser of the passenger computer. *Id.*, column 5, lines 50-52. The user of the pilot computer may direct the files displayed by the browser of the passenger computer. *Id.*, Abstract. Alternately, the browser of the pilot computer may display files selected using links on the passenger computer's browser. *Id.*, Abstract.

Thus the invention taught by Scherpbier allows the remote control of the displayed web files on the passenger computer. The passenger computer does not include a listening program, nor does Scherpbier teach a client agent capable of controlling of the client computer, including accessing or backing up files.

Kalajan, U.S. Patent No. 5,941,954. Kalajan discloses a method of message redirection that allows a client computer to access network resources, such as resources usually supplied by a local area network (LAN), when the client computer is not connected to the LAN. *Kalajan*, column 2, line 48- column 3, line 4. The redirection method allows a user to access network resources from the user's client machine *Id.*, figure 1. A user selects and downloads a message redirection application from a browser menu. *Id.*, column 3, lines 40-47. The message redirection program includes a listening program that monitors a communications port of the client computer. *Id.*, column 3, lines 52-54. The listening program in Kalajan intercepts messages sent by application programs to the LAN communications port. *Id.*, column 4, lines 9-11. The message redirection program directs the intercepted messages to a remote network resource. *Id.*, column 4, lines 9-18. Messages may be modified or encoded to secure the

transmitted data. *Id.*, column 1, lines 62-65. Messages from the remote network resource are also redirected by the message redirection program to the application program through the LAN communications port. *Id.* column 4, lines 11-13. Kalajan teaches no remote user control of a client machine. The user and the client machine are co-located. *Id.*, figure 1. Instead Kalajan discloses redirecting communications from a first network resource such as a LAN, to a second network resource, such as an Internet-based server.

Lack of Prima Facie Case of Obviousness Under 35 U.S.C. § 103. The Federal Circuit has held that "the 'subject matter' that must have been obvious to deny patentability under § 103 is the entirety of the claimed invention," *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1576 (Fed. Cir. 1987). In the present case, Scherpbier and Kalajan fail however to disclose the entirety of the claimed invention. Specifically, Scherpbier and Kalajan fail to disclose a listening program residing on the client computer responsive to requests for remote access to the client machine from a remote browser. Scherpbier and Kalajan also fail to teach a client agent capable of controlling the client machine.

Claim 1.

Scherpbier and Kalajan fail to disclose "...a client machine further comprised of a listening program configured to be responsive to requests for remote access from the browser, establish direct communications therewith, and invoke a client agent for communicating with the browser and a server machine..." as recited in claim 1 of the present invention. Claims, 1. While listening programs and other communication programs may be known in client/server systems, the recited limitations and functions of the listening program of the present invention distinguish the present invention over Scherpbier and Kalajan.

Specifically, the listening program taught by the present invention monitors one or more communications ports. When a device initiates communication through a communication port, the listening program responds by taking action. The listening program does not initiate action, but responds to communication activity. The listening program of the present program is thus differentiated from programs merely facilitating communication between devices including the programs facilitating communications between the browser and the client machine of the present invention.

The Examiner cites Scherpbier as disclosing "a client machine further comprised of a listening program responsive to requests for remote access..." Office Action, December 18, 2002, paragraph 3. However, while Scherpbier does disclose a passenger applet, the passenger applet does not initially reside on the passenger computer nor monitor a communications port on the passenger computer as a listening program would. *Scherpbier*, column 5, lines 15-17.

Scherpbier teaches a user connecting with a URL address and downloading a boarding applet to the user's passenger computer. *Scherpbier*, column 5, lines 6-8. Scherpbier further discloses that the boarding applet connects to the control site after the user enters a flight number and initiates further communication. *Id.*, column 5, lines 15-17. The boarding applet does not respond to communication as a listening program does, but instead initiates communication with the control site. *Id.*, column 5, lines 11-18. Thus Scherpbier teaches no listening program residing on the client machine responsive to requests for remote access.

Kalajan teaches a listening program that resides on the user's client computer. *Kalajan*, figure 1, 20. Yet in contrast to the present invention, the listening program in Kalajan redirects the client machine communications from one network resource to another network resource. *Id.*

at column 3, line 66 – column 4, line 18. Kalajan does not disclose a listening program that responds to requests for remote access to the client computer of the present invention.

Neither Scherpbier nor Kalajan, singly or in combination, teach the entirety of the limitations of the present invention. Specifically, there is no teaching of a listening program residing on a client that responds to requests for remote access to the client machine from a remote browser. Because the limitations of the listening program residing on a client that responds to requests for remote access renders the present invention unobvious, Appellant asserts that claim 1 is allowable.

"It is insufficient that the prior art disclosed the components of the patented device, either separately or used in other combinations; there must be some teaching, suggestion, or incentive to make the combination made by the inventor." *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 934 (Fed. Cir. 1990) See e.g. *Interconnect Planning Corp. v. Feil,* 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed.Cir.1985). To establish *prima facie* obviousness, there must be some suggestion or motivation to modify the reference or to combine reference teachings to arrive at the claimed invention. "The teaching or suggestion to make the claimed combination ... must be found in the prior art, not in applicant's disclosure." MPEP 2143, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." See *MPEP 2143.01*, citing *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Appellant has argued above that Scherpbier does not contain a listening program on the client machine, and that Kalajan does not teach a listening program on the client machine

responsive to requests for remote access. However, even if all recited elements were present in the combined references, Appellant finds no motivation to combine Scherpbier and Kalajan nor any indication of the desirability of such a combination to arrive at the present invention. The cited Scherpbier and Kalajan references teach isolated claim limitations similar to the present invention, but fail to disclose, suggest, or motivate modifying the Scherpbier methods and systems to arrive at the present invention as a whole.

It is "impermissible to use the claims as a frame and the prior art references as a mosaic to piece together a facsimile of the claimed invention." *Uniroyal v. Rudkin-Wiley*, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988) (citing *W. L. Gore & Associates v. Garlock, Inc.*, 220 USPQ 303, 312). Yet, the final rejection cites references with many of the elements of the present invention but in different fields of endeavor and lacking all limitations of the present invention or any suggestion or teaching for combination. A *Prima facie* case of obviousness requires that the prior art teach or suggest the whole invention as claimed. As the Federal Circuit has explained, "It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art." *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 448, 230 USPQ 416 (Fed. Cir. 1986) (quoting *In re Wesslau*, 353 F.2d 238, 241, 147 USPQ 391, 393 (CCPA 1965)).

The Examiner rejected claim 1 by picking and choosing isolated teachings from the Scherpbier and Kalajan references and pasting them together to recreate the claims. Scherpbier teaches user-initiated remote control of the user's client machine browser by a remote pilot. Scherpbier, Abstract. Kalajan discloses a listening program that redirects client communications

from one network resource to another network resource. *Kalajan*, Abstract. Scherpbier and Kalajan neither suggest nor teach the combination of the present invention, a browser on a remote server requesting a listening program on the client machine to initiate direct communications with a client agent for controlling the client machine. *Drawings*, Figure 2, 28. *Specification*, page 13, line 19 – page 14, line 4.

Applicant respectfully asserts that the teaching or suggestion to make the claimed combination is only found only in the Applicant's disclosure. For the present invention to be properly held to be obvious, the suggestion to make the invention's combination must be found in the prior art. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Neither Scherpbier nor Kalajan teach a browser contacting a client machine listening program to establish remote control of the client machine. The present invention provides the only suggestion for a remote browser to initiate communications with a client-based listening program in order to control the client machine.

Applicant respectfully asserts that Scherpbier and Kalajan also represent different fields of endeavor from the present invention. Although Scherpbier, Kalajan, and the present invention all include aspects of client-server architectures, the applications are vastly different. The Federal Circuit has made it clear that art is not in the same field of endeavor as an invention merely because it includes similar technologies. *Wang Labs., Inc. v. Toshiba Corp.*, 26 USPQ 2d 1767, 1773 (Fed. Cir. 1993). See e.g. *SRI International, Inc. v. Advanced Tech. Labs., Inc.*, Civ. App. No. 93-1074, slip op. at 6 (Fed. Cir. Dec 21, 1994). The client machines of both Scherpbier and Kalajan have users. *Scherpbier*, column 1, 24-26. *Kalajan*, column 4, 23-28. In Scherpbier the user initiates remote control of the user's browser on a client machine. *Scherpbier*, figure 1.

In Kalajan the user redirects the communications of user's client machine to alternate network resources. *Kalajan*, figure 1. Neither Scherpbier nor Kalajan teach toward the field of endeavor of the present invention, remotely controlling a user-less client machine from a browser. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). As neither Scherpbier nor Kalajan are in the present invention's field of endeavor of user-less remote control, references to Scherpbier and Kalajan cannot be the basis for a rejection.

Applicant further asserts that Scherpbier and Kalajan represent different purposes from the present invention. The present invention teaches control of a remote client machine to facilitate functions such as storage management when no user is present to perform the functions. In contrast, Scherpbier teaches controlling the browser of the user's client machine. *Scherpbier*, column 2, 14-19. Kalajan teaches a method for a user of a client machine to access network resources. *Kalajan*, column 4, 23-28. Because Scherpbier and Kalajan teach distinctly different purposes, Applicant asserts that there is no *prima facie* case as to why the combination of the teachings is proper. *Ex parte Skinner*, 2 USPQ2d 1788 (Bd. Pat. App. & Inter. 1986).

Applicant also asserts that the combination of Scherpbier and Kalajan destroys the purpose and utility of the prior art invention. The Federal Circuit has determined there is no suggestion or motivation to make a proposed modification if the modification would render the prior art unsatisfactory for its intended purpose. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). If Kalajan is combined with Scherpbier, the purpose and utility of both are

destroyed. The browser functions of Scherpbier would not be externally controlled but rather controlled by the client as in Kalajan, contrary to the purpose of Scherpbier. Alternately, the access to network functions of Kalajan would remain externally controlled, contradicting their intended purpose and utility. Therefore there is no suggestion or motivation to combine Scherpbier and Kalajan as combining the references would destroy the intended purpose of both.

The Federal Circuit has held that obviousness cannot be determined by the hindsight combination of components culled from the prior art. *ATD Corporation v. Lydall, Inc.*, 48 USPQ 2d 1321, 1329 (Fed. Cir. 1998). The suggestion to combine the listening program of Kalajan with the user-initiated remote control of a client machine taught in Scherpbier is the result of hindsight. Because of the differences between the problems solved by Scherpbier, Kalajan, and the present invention, the Scherpbier and Kalajan references could only be combined using the present invention as a template. Absent a teaching or suggestion to combine Scherpbier and Kalajan, obviousness cannot be established. *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 221 USPQ 929, 932, 933 (Fed. Cir. 1984). Appellant asserts that claim 1 is allowable.

Claim 2.

Claim 2 depends from claim 1 and should be allowed for all the same reasons stated above regarding claim 1. In addition, claim 2 includes the limitation "...wherein the browser requests access to a client machine..." *Claims*, claim 2. In contrast, in Scherpbier, the browser of the client computer requests access to a control site. *Scherpbier*, Column 5, lines 5-8. The browser does not request access to the client machine as cited by the Examiner. Office Action, December 18, 2002, paragraph 5. The specific limitation of claim 2 is not described in the prior art relied on in the rejection and Appellant asserts that claim 2 is allowable.

Claim 3.

Claim 3 depends from claim 2 and should be allowed for all the same reasons stated above regarding claim 2. In addition, the Examiner asserted that in Schrepbier, "...the listening program in the client machine is listening on the port number, and establishes communications with the browser over a second port number in response to the request for access..." *Id.* at paragraph 6. However, as shown above, the client machine in Scherpbier does not include a listening program as disclosed in the present invention. Further, the client machine initiates communication in Scherpbier rather than respond to a request for access. *Scherpbier*, Column 5, lines 6-8. In contrast, the remote server machine initiates communication in the present invention. *Specification*, page 6, lines 13-16. Appellant asserts that claim 3 is allowable because the specific limitation of claim 3 is not described by the prior art relied on in the rejection.

Claim 4.

Claim 4 depends from claim 3 and should be allowed for all the same reasons stated above regarding claim 3. In addition, claim 4 adds the limitation "...listening program spawns the client agent to communicate with the browser..." *Claims*, 4. The listening program resides on the client machine and the browser requests remote access. Specification, page 13, line 15 – page 14, line 4. The Examiner cites Scherpbier as disclosing a listening programming spawning a client agent to communicate with the browser and the server. Office Action, December 18, 2002, paragraph 7. However, as discussed above, no program in Scherpbier performing the same function as the listening program in the present invention resides on client machine. A listening program may be inferred on the control site. *Scherpbier*, column 5, lines 15-17. The limitations of claim 4 are thus not disclosed by the prior art. Appellant asserts that claim 4 is allowable.

Claim 5.

Claim 5 depends from claim 4 and should be allowed for all the same reasons stated above regarding claim 4. In addition, claim 5 teaches the limitation of the client agent sending the browser requesting remote access an applet. *Claims*, 5. The Examiner cites Scherpbier as teaching the client agent sending the browser an applet. Office Action, December 18, 2002, paragraph 8. However, in Scherpbier it is the control site that sends an applet to the client machine or passenger computer, rather than the client machine sending an applet to the browser requesting remote access. *Scherpbier*, column 5, lines 15-17. Appellant asserts that claim 5 is allowable because the limitations of claim 4 are not disclosed by Scherpbier as asserted by the Examiner.

Claim 6.

Claim 6 depends from claim 5 and should be allowed for all the same reasons stated above regarding claim 5. In addition, claim 6 adds the limitation of the applet executing in the national language of browser. The Examiner cites Scherpbier as also disclosing the limitation of the applet executing in the national language of browser. Office Action, December 18, 2002, paragraph 9. Yet Scherpbier makes no reference to the applet executing in the national language of the browser. The limitations of claim 6 are thus not disclosed by the prior art. Appellant asserts that claim 6 is allowable.

Claim 7.

Claim 7 depends from claim 5 and includes the limitation "...the browser is located on the server machine." *Claims*, claim 7. The Examiner cites Scherpbier as disclosing a browser located on the server machine. *Id.* at paragraph 10. In Scherpbier, browsers are located on both

the pilot and passenger machines. *Scherpbier*, Figure 1. However, claim 7 should be allowed because it depends from the allowable limitations of claim 5.

Claim 8.

Claim 8 depends from claim 5 and should be allowed for all the same reasons stated above regarding claim 5. Claim 8 adds the limitation that the applet graphical user interface is a command line interface. Claims, claim 8. The Examiner cites Scherpbier as also disclosing the graphical user interface is a command line interface. Office Action, December 18, 2002, paragraph 11. Scherpbier discloses a preferred display configuration with the top of the display containing browser information and the bottom of the display containing information pertaining to flight applets, but no explicit command line interface. Scherpbier, figure 4, column 5, lines 21-30. Appellant asserts that claim 8 is allowable because the limitations are not disclosed by the prior art.

Claim 9.

Independent claim 9 should be allowed as unobvious for all the reasons stated above for claim 1. In addition, the present invention claims "...listening at the port number for access requests at the client machine;" Claims, 9. As discussed previously, neither Scherpbier and Kalajan disclose listening on the client machine for access requests to the client machine.

Kalajan teaches a listening program on the client machine to redirect a communication from one network resource such as a LAN to another a remote network resource. Kalajan, column 7, lines 7-12. Because the limitations of the present invention and the disclosures of the prior art are significant, Appellant asserts that claim 9 is allowable.

Claim 16.

Independent claim 16 should be allowed for all the reasons stated above for claim 1. In addition, the present invention claims "providing a listening program for listening for a communication from the browser, establishing direct communications therewith..." on the client platform. Claims, 16. In contrast Kalajan teaches a listening program on the client that redirects communications from one network resource to another network resource. Kalajan, Abstract. Scherpbier teaches no listening program on the client machine. Appellant asserts claim 16 is allowable because the limitations of the present invention in their entirety are not taught in Scherpbier and Kalajan.

Claims 10-15, 17-22.

As to claims 10-15, and 17-22, these claims depend directly or indirectly from claims 1, 9, and 16. Furthermore, these claims add limitations to one or more of the elements discussed above which are not identically included in Scherpbier and Kalajan. Therefore, under the rationale discussed above, Appellant asserts that these claims are allowable.

No Prima Facie Obviousness Established.

In view of the foregoing, the Examiner has not properly established a *prima facie* of obviousness of claims 1-22. Appellant respectfully requests reversal of the Section 103 rejection and allowance of claims 1-22. Appellant submits that the foregoing arguments further establish the non-obviousness of the present invention. Reversal of the rejections and allowance of the pending claims is respectfully requested.

SUMMARY

In view of the foregoing, each of the claims on appeal has been improperly rejected.

Reversal of the Examiner's rejection and allowance of the pending claims 1-22 is respectfully requested.

Respectfully submitted,

Brian C. Kunzler Reg. No. 38,527

Attorney for Appellant

Date: November 12, 2003

Kunzler & Associates 10 West 100 South Suite 425 Salt Lake City, UT 84101 Telephone (801) 994-4646 Fax (801) 322-1054

9. APPENDIX

Claims involved in the appeal

- 1. (Amended) A system for remotely accessing a client in a client-server system comprising:
 - a browser for requesting remote access;
- a client machine further comprised of a listening program configured to be responsive to requests for remote access from the browser, establish direct communications therewith, and invoke a client agent for communicating with the browser and a server machine, the client agent configured to control the client machine responsive to browser commands.
- 2. The system for remotely accessing a client in a client server system as claimed in claim 1, wherein the browser requests access to a client machine by sending a universal resource locator containing a machine name and a port number of a network.
- 3. The system for remotely accessing a client in a client server system as claimed in claim 2, wherein the listening program in the client machine is listening on the port number, and establishes communications with the browser over a second port number in response to the request for access.
- 4. The system for remotely accessing a client in a client server system as claimed in claim 3, wherein the listening program spawns the client agent to communicate with the browser.

- 5. The system for remotely accessing a client in a client server system as claimed in claim 4, wherein the client agent sends the browser an applet further comprising graphical user interface to execute on the browser.
- 6. The system for remotely accessing a client in a client server system as claimed in claim 5, wherein the applet executes in the national language and locale of the browser.
- 7. The system for remotely accessing a client in a client server system as claimed in claim 6, wherein the browser is located on the server machine.
- 8. The system for remotely accessing a client in a client server system as claimed in claim 7, wherein the graphical user interface is a command line interface.

9. (Amended) A method for remotely accessing a client machine from a browser over a network comprising the steps of:

providing a universal resource locator containing a machine name and a port number at a command line at the browser;

listening at the port number for access requests at the client machine;

responsive to a request for access from the browser, establishing direct communications therewith;

invoking a client agent within an application programming interface, the client agent configured to control the client machine responsive to browser commands; and communicating between the client agent and the browser over the network.

10. The method for remotely accessing a client machine from a browser over a network as claimed in claim 9, further comprising the step of:

communicating between the client agent and a server over the network.

11. The method for remotely accessing a client machine from a browser over a network as claimed in claim 10, further comprising the step of:

sending from the client agent to the browser a graphical user interface that looks like a GUI on the client machine when running at the browser.

- 12. The method for remotely accessing a client machine from a browser over a network as claimed in claim 11, wherein the graphical user interface is implemented in a JAVA applet.
- 13. The method for remotely accessing a client machine from a browser over a network as claimed in claim 10, wherein the communications are comprised of performing client functions from the browser.
- 14. The method for remotely accessing a client machine from a browser over a network as claimed in claim 13, wherein the communications are further comprised of retrieving files from the server to the client machine.
- 15. The method for remotely accessing a client machine from a browser over a network as claimed in claim 13, wherein the communications are further comprised of backing up files on client machine to the server.

16. (Amended) A computer-readable medium having a program for servicing a request using a client, the client being capable of communicating with a browser, the client providing a plurality of functions, the program containing instructions for:

providing a client agent containing a client platform and an application programming interface; and

providing a listening program for listening for a communication from the browser, establishing direct communications therewith, and invoking the client agent;

wherein the client agent communicates with both the browser and a server, the client agent further controlling the client platform responsive to browser commands.

- 17. The computer-readable medium as claimed in claim 16, wherein the client and the server are on the same machine.
- 18. The computer-readable medium as claimed in claim 16, wherein the browser and the server are on the same machine.
- 19. The computer-readable medium as claimed in claim 16, wherein the communications by the client agent with the server include instructions for backing up at least one client file.

- 20. The computer-readable medium as claimed in claim 16, wherein the communications by the client agent with the server include instructions for restoring at least one client file to the client from the server.
- 21. The computer-readable medium as claimed in claim 16, wherein the program instructions further include instructions for:

sending the browser a graphical user interface that runs at the browser.

22. The computer-readable medium as claimed in claim 21, wherein the graphical user interface is a JAVA applet.